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January 22, 2004

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Art Unit 1636**

Re: U.S. Utility Patent Application  
Application No. 09/438,358; Filed: November 12, 1999  
For: **Compositions and Methods for Recombinational Cloning of Nucleic Acid Molecules**  
Inventors: Gerard *et al.*  
Our Ref: 0942.4640001/RWE/BJD/JKM

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Fifth Supplemental Information Disclosure Statement;
2. List of cited documents on Form PTO-1449 (44 sheets);
3. A copy of each of the documents cited on Form PTO-1449 (144 documents: AO5-AM8, and AS67-AS110); and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents  
January 22, 2004  
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Brian J. Del Buono", with a stylized, sweeping flourish at the end.

Brian J. Del Buono  
Attorney for Applicants  
Registration No. 42,473

RWE/BJD/JKM/acr  
Enclosures

SKGF 220783v1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

GERARD *et al.*

Appl. No. 09/438,358

Filed: November 12, 1999

For: **Compositions and Methods for  
Recombinational Cloning of  
Nucleic Acid Molecules**

Confirmation No. 9194

Art Unit: 1636

Examiner: Leffers, Jr., G.

Atty. Docket:  
0942.4640001/RWE/BJD/JKM

**Fifth Supplemental Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Fifth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Third Supplemental Information Disclosure Statement filed on August 1, 2002, in connection with the above-captioned application, and Applicants' Fourth Supplemental Information Disclosure Statement filed electronically herewith. A copy of each document is also provided.

The Examiner's attention is directed to the following co-pending U.S. patent applications:

U.S. Application No. 09/648,790, filed August 28, 2000;

U.S. Application No. 10/680,316, filed October 8, 2003;

U.S. Application No. 10/396,696, filed March 26, 2003;  
U.S. Application No. 09/695,065, filed October 25, 2000;  
U.S. Application No. 09/984,239, filed October 29, 2001;  
U.S. Application No. 10/640,422, filed August 14, 2003; and  
U.S. Application No. 10/454,793, filed June 5, 2003;

which are directed to related technical subject matter. The identification of these U.S. patent applications is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material

submitted herewith.

This Fifth Supplemental Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. Payment of the fee under 37 C.F.R. § 1.17(p) has been included with a concurrently filed electronic Information Disclosure Statement, as it is believed that only one fee is required to cover both submissions.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono  
Attorney for Applicants  
Registration No. 42,473

Date: Jan. 27, 2004

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FORM PTO-1449  FIFTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 0942.4640001/RWE/BJD/JKM	APPLICATION NO. 09/438,358
	APPLICANT Gerard et al.	
	FILING DATE November 12, 1999	GROUP 1636

U.S. PATENT DOCUMENTS							
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FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO5	EP 0 220 009 A2	04/29/1987	Europe			Yes No
	AP5	EP 0 427 074 A2	05/15/1991	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR		
	AS	67	Akagi, K., et al., "Cre-mediated somatic site-specific recombination in mice," <i>Nucl. Acids Res.</i> 25:1781-1788, Oxford University Press (May 1997).
	AT	67	Aladjem, M.I., et al., "Positive Selection of FLP-Mediated Unequal Sister Chromatid Exchange Products in Mammalian Cells," <i>Mol. Cell. Biol.</i> 17:857-861, American Society for Microbiology (February 1997).

EXAMINER	DATE CONSIDERED
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL6	WO 91/09957 A1	07/11/1991	WIPO			Yes No
	AM6	WO 92/15694 A1	09/17/1992	WIPO			Yes No
	AN6	EP 0 542 466 A2	05/19/1993	Europe			Yes No
	AO6	WO 94/03624 A1	02/17/1994	WIPO			Yes No
	AP6	WO 94/18333 A1	08/18/1994	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	68	Angelastro, J.M., et al., "Identification of diverse nerve growth factor-regulated genes by serial analysis of gene expression (SAGE) profiling," <i>Proc. Natl. Acad. Sci. USA</i> 97:10424-10429, National Academy of Sciences (2000).	
AS	68	Angrand, P.O., et al., "Inducible expression based on regulated recombination: a single vector strategy for stable expression in cultured cells," <i>Nucl. Acids Res.</i> 26:3263-3269, Oxford University Press (July 1998).	
AT	68	Astumian, J.H., et al., "Site-Specific Recombination between Cloned attP and attB Sites from the <i>Haemophilus influenzae</i> Bacteriophage HP1 Propagated in Recombination-Deficient <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 171:1747-1750, American Society for Microbiology (1989).	

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	AL7	WO 96/04393 A2	02/15/1996	WIPO			Yes No
	AM7	WO 96/30498 A1	10/03/1996	WIPO			Yes No
	AN7	WO 96/40722 A1	12/19/1996	WIPO			Yes No
	AO7	WO 96/40724 A1	12/19/1996	WIPO			Yes No
	AP7	WO 00/12687 A1	03/09/2000	WIPO			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>69</u>	Ayres, E.K., et al., "Precise Deletions in Large Bacterial Genomes by Vector-mediated Excision (VEX). The trfA Gene of Promiscuous Plasmid RK2 is Essential for Replication in Several Gram-negative Hosts," <i>J. Mol. Biol.</i> 230:174-185, Academic Press (1993).	
AS	<u>69</u>	Bai, C., et al., "SKP1 Connects Cell Cycle Regulators to the Ubiquitin Proteolysis Machinery through a Novel Motif, the F-Box," <i>Cell</i> 86:263-274, Cell Press (1996).	
AT	<u>69</u>	Barnes, G., and Rine, J., "Regulated expression of endonuclease EcoRI in <i>Saccharomyces cerevisiae</i> : Nuclear entry and biological consequences," <i>Proc. Natl. Acad. Sci. USA</i> 82: 1354-1358, National Academy of Sciences (1985).	

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	AL8	WO 01/62892 A2	08/30/2001	WIPO			Yes No
	AM8	WO 02/05294 A1	01/17/2002	WIPO			Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>70</u>	Bauer, C.E. et al., "Extent of Sequence Homology Required for Bacteriophage Lambda Site-specific Recombination," <i>J. Mol. Biol.</i> 181:187-197, Academic Press Inc. (1985).
	AS	<u>70</u>	Bernard, P. et al., "The F Plasmid CcdB Protein Induces Efficient ATP-dependent DNA Cleavage by Gyrase," <i>J. Mol. Biol.</i> 234:534-541, Academic Press (1993).
	AT	<u>70</u>	Bernard, P., et al., "Positive-selection vectors using the F plasmid ccdB killer gene," <i>Gene</i> 148:71-74, Elsevier Science B.V. (1994).

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	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>71</u>	Boshart, M., et al., "A Very Strong Enhancer is Located Upstream of an Immediate Early Gene of Human Cytomegalovirus," Cell 41:521-530, The MIT Press (1985).
	AS	<u>71</u>	Bouhassira, E.E., et al., "Transcriptional Behavior of LCR Enhancer Elements Integrated at the Same Chromosomal Locus by Recombinase-Mediated Cassette Exchange," Blood 90:3332-3344, The American Society of Hematology (November 1997).
	AT	<u>71</u>	Brent, R., and Ptashne, M., "A bacterial repressor protein or a yeast transcriptional terminator can block upstream activation of a yeast gene," Nature 312: 612-615, Macmillan Journals Ltd. (1984).

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	AR	<u>72</u>	Burioni, R., et al., "An improved phage display vector for antibody repertoire cloning by construction of combinatorial libraries," <i>Res. Virol.</i> 148:161-164, Elsevier (March-April 1997).
	AS	<u>72</u>	Capone, J.P., et al., "Introduction of UAG, UAA, and UGA Nonsense Mutations at a Specific Site in the <i>Escherichia coli</i> Chloramphenicol Acetyltransferase Gene: Use in Measurement of Amber, Ochre, and Opal Suppression in Mammalian Cells," <i>Mol. Cell. Biol.</i> 6:3059-3067, American Society for Microbiology (1986).
	AT	<u>72</u>	Chanock, R.M., et al., "Human Monoclonal Antibody Fab Fragments Cloned from Combinatorial Libraries: Potential Usefulness in Prevention and/or Treatment of Major Human Viral Diseases," <i>Infect. Agents Dis.</i> 2:118-131, Raven Press (1993).

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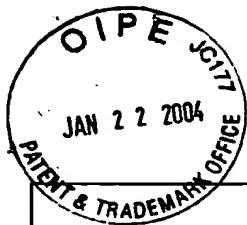
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>73</u>	Cherepanov, P.P., and Wackernagel, W., "Gene disruption in <i>Escherichia coli</i> : Tc <sup>R</sup> and Km <sup>R</sup> cassettes with the option of Flp-catalyzed excision of the antibiotic-resistance determinant," <i>Gene</i> 158:9-14, Elsevier Science B.V. (1995).
	AS	<u>73</u>	Chong, S., et al., "Single-column purification of free recombinant proteins using a self-cleavable affinity tag derived from a protein splicing element," <i>Gene</i> 192:271-281, Elsevier Science B.V. (June 1997).
	AT	<u>73</u>	Choulika, A., et al., "Transfer of Single Gene-Containing Long Terminal Repeats into the Genome of Mammalian Cells by a Retroviral Vector Carrying the cre Gene and the loxP Site." <i>J. Virol.</i> 70:1792-1798, American Society for Microbiology (1996).

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	AN						Yes No
	AO						Yes No
	AP						Yes No

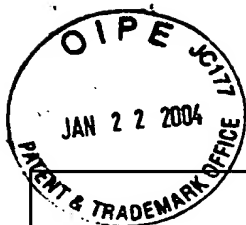
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	74	Chuang, C.-F., and Meyerowitz, E.M., "Specific and heritable genetic interference by double-stranded RNA in <i>Arabidopsis thaliana</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 97:4985-4990, National Academy of Sciences (2000).
	AS	74	Cigan, A.M., et al., "Mutational Analysis of the <i>HIS4</i> Translational Initiator Region in <i>Saccharomyces cerevisiae</i> ," <i>Mol. Cell. Biol.</i> 8:2964-2975, American Society for Microbiology (1988).
	AT	74	CLONTECH, "Creator™ Gene Cloning & Expression System," <i>CLONTECHniques</i> 15:7-11, CLONTECH (2000).

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**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>75</u>	CLONTECH, "New Additions to the Creator™ Platform," CLONTECHniques 16:1-4, CLONTECH (2001).
	AS	<u>75</u>	CLONTECH, "New Creator™ -Compatible Expression Systems," CLONTECHniques 15:2 pages, CLONTECH (2000).
	AT	<u>75</u>	CLONTECH, "Creator™ Acceptor Vector Construction Kit" CLONTECHniques 16:2 pages, CLONTECH (2001).

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**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>76</u>	CLONTECH, "Creator™ SMART™ Library Construction Kit," CLONTECHniques 16:2 pages, CLONTECH (2001).
AS	<u>76</u>	CLONTECH, "Creator™: The Universal Platform for Analysis of Gene Function," Powerpoint Presentation, pp. 1-9, CLONTECH (2001), available at <a href="http://www.clontech.com/products/families/creator/popups/slpage1.html">http://www.clontech.com/products/families/creator/popups/slpage1.html</a> .
AT	<u>76</u>	CLONTECH, "Creator™ pDNR-Dual Cloning Kit," CLONTECHniques 16:3 pages, CLONTECH (2001).

EXAMINER

DATE CONSIDERED

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	APPLICANT Gerard et al.	
	FILING DATE November 12, 1999	GROUP 1636

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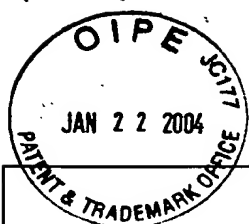
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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>77</u>	Collis, C.M. and Hall, R.M., "Expression of Antibiotic Resistance Genes in the Integrated Cassettes of Integrins," <i>Antimicrobial Agents and Chemotherapy</i> 39:155-162, American Association for Microbiology (1995).
	AS	<u>77</u>	Cormack, B., "Directed Mutagenesis Using the Polymerase Chain Reaction," in <i>Current Protocols in Molecular Biology</i> , Ausubel, F.M., et al., eds., John Wiley & Sons, Inc., New York, NY, pp. 8.5.1-8.5.10 (January 1997).
	AT	<u>77</u>	Datson, N.A., et al., "MicroSAGE: a modified procedure for serial analysis of gene expression in limited amounts of tissue," <i>Nucl. Acids Res.</i> 27:1300-1307, Oxford University Press (March 1999).

EXAMINER	DATE CONSIDERED
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**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	78	Davis, C.R., et al., "Analysis of the Mechanisms of Action of the <i>Saccharomyces cerevisiae</i> Dominant Lethal <i>cdc42</i> <sup>G12V</sup> and Dominant Negative <i>cdc42</i> <sup>D118A</sup> Mutations," <i>J. Biol. Chem.</i> 273:849-858, The American Society for Biochemistry and Molecular Biology (January 1998).
AS	78	Deng, M.-D., and Coleman, J.R., "Ethanol Synthesis by Genetic Engineering in Cyanobacteria," <i>Appl. Environ. Microbiol.</i> 65:523-528, American Society for Microbiology (February 1999).
AT	78	Derbyshire, V., and Belfort, M., "Lightning strikes twice: Intron-intein coincidence," <i>Proc. Natl. Acad. Sci. USA</i> 95:1356-1357, National Academy of Sciences (February 1998).

EXAMINER

DATE CONSIDERED

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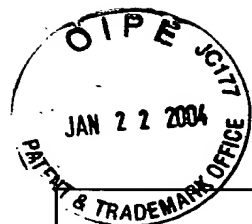
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>79</u>	Dijkema, R., et al., "Cloning and expression of the chromosomal immune interferon gene of the rat." <i>EMBO J.</i> 4:761-767, IRL Press Limited (1985).
	AS	<u>79</u>	Enquist, L.W., and Weisberg, R.A., "The Red Plaque Test: A Rapid Method for Identification of Excision Defective Variants of Bacteriophage Lambda," <i>Virology</i> 72: 147-153, Academic Press, Inc. (1976).
	AT	<u>79</u>	Esposito, D., and Scocca, J.J., "The integrase family of tyrosine recombinases: evolution of a conserved active site domain," <i>Nucl. Acids Res.</i> 25:3605-3614, Oxford University Press (September 1997).

EXAMINER

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	AR	<u>80</u>	Feinbaum, R., "Vectors Derived from Plasmids," in <i>Current Protocols in Molecular Biology</i> , Ausubel, F. M., et al., eds., John Wiley & Sons, Inc., New York, NY, pp.1.5.1-1.5.17 (January 1998).
	AS	<u>80</u>	Flanagan, P.M., and Fennwald, M.A., "Analysis of Inhibitors of the Site-specific Recombination Reaction Mediated by Tn3 Resolvase," <i>J. Mol. Biol.</i> 206:295-304, Academic Press (1989).
	AT	<u>80</u>	Flores, A., et al., "A protein-protein interaction map of yeast RNA polymerase III," <i>Proc. Natl. Acad. Sci. USA</i> 96:7815-7820, National Academy of Sciences (July 1999).

EXAMINER

DATE CONSIDERED

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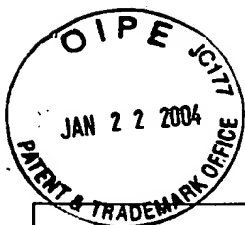
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>81</u>	Francia, M.V., et al., "The IntI1 Integron Integrase Preferentially Binds Single-Stranded DNA of the attC Site," <i>J. Bacteriol.</i> 181:6844-6849, American Society for Microbiology (November 1999).
	AS	<u>81</u>	Gateway™ Cloning Technology, Version 1, GIBCO BRL, Life Technologies Instruction Manual, [retrievable from < <a href="http://www.lifetech.com/gateway">http://www.lifetech.com/gateway</a> >], pp. 1-60 (November 1999).
	AT	<u>81</u>	Gay, P., et al., "Positive Selection Procedure for Entrapment of Insertion Sequence Elements in Gram-Negative Bacteria," <i>J. Bacteriol.</i> 164:918-921, American Society for Microbiology (1985).

EXAMINER

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	AR	<u>82</u>	Gay, P., et al., "Cloning Structural Gene <i>sacB</i> , Which Codes for Exoenzyme Levansucrase of <i>Bacillus subtilis</i> : Expression of the Gene in <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 153:1424-1431, American Society for Microbiology (1983).
	AS	<u>82</u>	Gorman, C.M., et al. "The Rous sarcoma virus long terminal repeat is a strong promoter when introduced into a variety of eukaryotic cells by DNA-mediated transfection," <i>Proc. Natl. Acad. Sci. USA</i> 79:6777-6781, National Academy of Sciences (1982).
	AT	<u>82</u>	Grindley, N.D.F., and Kelley, W.S., "Effects of Different Alleles of the <i>E. coli</i> K12 <i>polA</i> Gene on the Replication of Non-transferring Plasmids," <i>Molec. Gen. Genet.</i> 143:311-318, Springer Verlag (1976).

EXAMINER

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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>83</u>	Gronostajski, R.M., and Sadowski, P.D., "The FLP Protein of the 2-micron Plasmid of Yeast. Inter- and Intramolecular Reactions," <i>J. Biol. Chem.</i> 260:12328-12335, The American Society of Biological Chemists (1985).	
AS	<u>83</u>	Haffter, P., and Bickle, T.A., "Enhancer-independent mutants of the Cin recombinase have a relaxed topological specificity," <i>EMBO J.</i> 7:3991-3996, IRL Press (1988).	
AT	<u>83</u>	Hancock, R.E.W., and Scott, M.G., "The role of antimicrobial peptides in animal defenses," <i>Proc. Natl. Acad. Sci. USA</i> 97:8856-8861, National Academy of Sciences (2000).	

EXAMINER	DATE CONSIDERED
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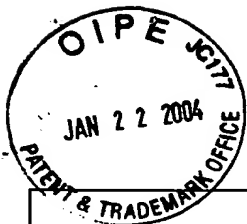
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>84</u>	Henikoff, S., "Unidirectional digestion with exonuclease III creates targeted breakpoints for DNA sequencing," <i>Gene</i> 28:351-359, Elsevier Science (1984).
	AS	<u>84</u>	Hochuli, E., et al., "Genetic Approach to Facilitate Purification of Recombinant Proteins with a Novel Metal Chelate Adsorbent," <i>Bio/Technology</i> 6:1321-1325, Nature Publishing Company (1988).
	AT	<u>84</u>	Hoess, R.H., and Abremski, K., "Interaction of the bacteriophage P1 recombinase Cre with the recombining site loxP," <i>Proc. Natl. Acad. Sci. USA</i> 81:1026-1029, National Academy of Sciences (1984).

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	AR	<u>85</u>	Iida, S., et al., "A site-specific, conservative recombination system carried by bacteriophage P1. Mapping of the recombinase gene cin and the crossover sites cix for the inversion of the C segment." <i>EMBO J.</i> 1:1445-1453, IRL Press Limited (1982).
	AS	<u>85</u>	Iino, T., and Kutsukake, K., "Trans-acting Genes of Bacteriophages P1 and Mu Mediate Inversion of a Specific DNA Segment Involved in Flagellar Phase Variation of <i>Salmonella</i> ," <i>Cold Spring Harbor Symposia on Quantitative Biology</i> 45: 11-16, Cold Spring Harbor Laboratory (1981).
	AT	<u>85</u>	Johnson, R.C., et al., "Isolation of the gene encoding the Hin recombinational enhancer binding protein," <i>Proc. Natl. Acad. Sci. USA</i> 85:3484-3488, National Academy of Sciences (1988).

EXAMINER

DATE CONSIDERED

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	AR	<u>86</u>	Kaniga, K., et al., "A wide-host-range suicide vector for improving reverse genetics in Gram-negative bacteria: inactivation of the <i>blaA</i> gene of <i>Yersinia enterocolitica</i> ," <i>Gene</i> 109:137-141, Elsevier Science B.V. (1991).
	AS	<u>86</u>	Katz, L., et al., "Site-specific recombination in <i>Escherichia coli</i> between the att sites of plasmid pSE211 from <i>Saccharopolyspora erythraea</i> ," <i>Mol. Gen. Genet.</i> 227: 155-159, Springer-Verlag (1991).
	AT	<u>86</u>	Kealey, J.T., et al., "Production of polyketide natural product in nonpolyketide-producing prokaryotic and eukaryotic hosts," <i>Proc. Natl. Acad. Sci. USA</i> 95:505-509, National Academy of Sciences (January 1998).

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	AR	<u>87</u>	Kholodenko, B.N., et al., "Metabolic Design: How to Engineer a Living Cell to Desired Metabolite Concentrations and Fluxes," <i>Biotechnol. Bioengineer.</i> 59:239-247, John Wiley & Sons (July 1998).
	AS	<u>87</u>	Kim, D.W., "Use of the human elongation factor 1 $\alpha$ promoter as a versatile and efficient expression system," <i>Gene</i> 91:217-223, Elsevier Science B.V. (1990).
	AT	<u>87</u>	Klippel, A. et al., "Isolation and characterization of unusual <i>gin</i> mutants," <i>The EMBO Journal</i> 7: 3983-3989, IRL Press Inc. (1988).

EXAMINER

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	AR	<u>88</u>	Koch, C., et al., "Escherichia coli host factor for site-specific DNA inversion: Cloning and characterization of the <i>fis</i> gene," <i>Proc. Natl. Acad. Sci. USA</i> 85:4237-4241, National Academy of Sciences (1988).
	AS	<u>88</u>	Kolb, A.F., and Siddell, S.G., "Genomic targeting with an MBP-Cre fusion protein," <i>Gene</i> 183:53-60, Elsevier Science B.V. (1996).
	AT	<u>88</u>	Kouprina, N., et al., "Rescue of Targeted Regions of Mammalian Chromosomes by in Vivo Recombination in Yeast," <i>Genome Res.</i> 8:666-672, Cold Spring Harbor Laboratory Press (June 1998).

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**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>89</u>	Krautwald, S., and Baccarini, M., "Bacterially Expressed Murine CSF-1 Possesses Agonistic Activity in its Monomeric Form," <i>Biochem. Biophys. Res. Commun.</i> 192: 720-727, Academic Press (1993).
AS	<u>89</u>	Langeveld, S.A. et al., "Expression of an <i>Escherichia coli</i> phr gene in the yeast <i>Saccharomyces cerevisiae</i> ," <i>Mol. Gen. Genet.</i> 199: 396-400, Springer-Verlag (1985).
AT	<u>89</u>	Leslie, N.R., and Sherratt, D.J., "Site-specific recombination in the replication terminus region of <i>Escherichia coli</i> : functional replacement of dif," <i>EMBO J.</i> 14:1561-1570, Oxford University Press (1995).

EXAMINER

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**U.S. PATENT DOCUMENTS**

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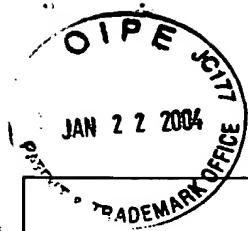
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>90</u>	Leung, L.L.K., "Application of Combinatorial Libraries and Protein Engineering to the Discovery of Novel Anti-Thrombotic Drugs," <i>Thromb. Haemost.</i> 74:373-376, F.K. Schattauer Verlagsgesellschaft mbH (1995).
AS	<u>90</u>	Li, Z.-W., et al., "Generation of mice with a 200-kb amyloid precursor protein gene deletion by Cre recombinase-mediated site-specific recombination in embryonic stem cells," <i>Proc. Natl. Acad. Sci. USA</i> 93:6158-6162, National Academy of Sciences (1996).
AT	<u>90</u>	Lu, F., and Churchward, G., "Conjugative transposition: Tn916 integrase contains two independent DNA binding domains that recognize different DNA sequences," <i>EMBO J.</i> 13:1541-1548, Oxford University Press (1994).

EXAMINER

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	AR	<u>91</u>	Madison, L.L., and Huisman, G.W., "Metabolic Engineering of Poly(3-Hydroxyalkanoates): From DNA to Plastic," <i>Microbiol. Mol. Biol. Rev.</i> 63:21-53, American Society for Microbiology (March 1999).
	AS	<u>91</u>	Maemura, K., et al., "Generation of a Dominant-negative Mutant of Endothelial PAS Domain Protein 1 by Deletion of a Potent C-terminal Transactivation Domain," <i>J. Biol. Chem.</i> 274:31565-31570, The American Society for Biochemistry and Molecular Biology (October 1999).
	AT	<u>91</u>	Mahillon, J., et al., "Subdivision of the <i>Escherichia coli</i> K-12 genome for sequencing: manipulation and DNA sequence of transposable elements introducing unique restriction sites," <i>Gene</i> 223:47-54, Elsevier Science B.V. (November 1998).

EXAMINER

DATE CONSIDERED

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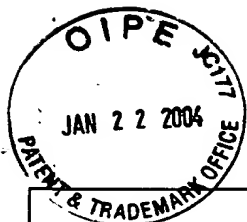
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>92</u>	Malynn, B.A., et al., "The scid Defect Affects the Final Step of the Immunoglobulin VDJ Recombinase Mechanism," <i>Cell</i> 54:453-460, Cell Press (1988).
	AS	<u>92</u>	Maniatis, T., et al., "Regulation of Inducible and Tissue-Specific Gene Expression," <i>Science</i> 236:1237-1245, American Association for the Advancement of Science (1987).
	AT	<u>92</u>	Manning, P.A., et al., "Gene capture in <i>Vibrio cholerae</i> ," <i>Trends Microbiol.</i> 7:93-95, Elsevier Science (March 1999).

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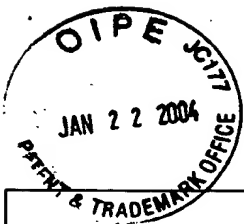
	AR	<u>93</u>	Mendiola, M.V., and de la Cruz, F., "Specificity of insertion of IS91, an insertion sequence present in $\alpha$ -haemolysin plasmids of <i>Escherichia coli</i> ," <i>Mol. Microbiol.</i> 3:979-984, Blackwell Scientific Publications (1989).
	AS	<u>93</u>	Mercier, J., et al., "Structural and Functional Characterization of <i>tnpI</i> , a Recombinase Locus in Tn21 and Related $\beta$ -Lactamase Transposons," <i>J. Bacteriol.</i> 172:3745-3757, American Society for Microbiology (1990).
	AT	<u>93</u>	Metcalf, W.W., et al., "Conditionally Replicative and Conjugative Plasmids Carrying <i>lacZ</i> $\alpha$ for Cloning, Mutagenesis, and Allele Replacement in Bacteria," <i>Plasmid</i> 35:1-13, Academic Press (1996).

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	94	Mette, M.F., et al., "Transcriptional silencing and promoter methylation triggered by double-stranded RNA," <i>EMBO J.</i> 19:5194-5201, Oxford University Press (2000).
AS	94	Meyer-Leon, L., et al., "Purification of the FLP site-specific recombinase by affinity chromatography and re-examination of basic properties of the system," <i>Nucl. Acids Res.</i> 15:6469-6488, IRL Press (1987).
AT	94	Miller, H.I. et al., "int-h: an int Mutation of Phage $\lambda$ That Enhances Site-Specific Recombination," <i>Cell</i> 20: 721-729, MIT (1980).

EXAMINER	DATE CONSIDERED
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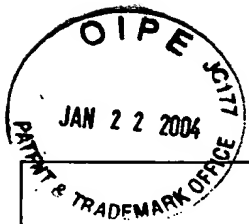
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>95</u>	Mizushima, S., and Nagata, S., "pEF-BOS, a powerful mammalian expression vector," <i>Nucl. Acids Res.</i> 18:5322, Oxford University Press (1990).
	AS	<u>95</u>	Murayama, N., et al., "Evidence for Involvement of <i>Escherichia coli</i> Genes <i>pmbA</i> , <i>csrA</i> and a Previously Unrecognized Gene <i>tldD</i> , in the Control of DNA Gyrase by <i>letD</i> ( <i>ccdB</i> ) of Sex Factor F," <i>J. Mol. Biol.</i> 256:483-502, Academic Press Limited (1996).
	AT	<u>95</u>	Nash, H.A., and Robertson, C.A., "Purification and Properties of the <i>Escherichia coli</i> Protein Factor Required for $\lambda$ Integrative Recombination," <i>J. Biol. Chem.</i> 256:9246-9253, American Society for Biochemistry and Molecular Biology (1981).

EXAMINER

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	AP						Yes No

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	AR	<u>96</u>	Odell, J.T., et al., "Seed-Specific Gene Activation Mediated by the Cre/lox Site-Specific Recombination System," <i>Plant Physiol.</i> 106:447-458, American Society of Plant Physiologists (1994).
	AS	<u>96</u>	O'Gara, J.P., et al., "Identification and Molecular Genetic Analysis of Multiple Loci Contributing to High-Level Tellurite Resistance in <i>Rhodobacter sphaeroides</i> 2.4.1," <i>Appl. Environ. Microbiol.</i> 63:4713-4720, American Society for Microbiology (December 1997).
	AT	<u>96</u>	Okayama, H., and Berg, P., "Bacteriophage Lambda Vector for Transducing a cDNA Clone Library into Mammalian Cells," <i>Molecular and Cellular Biology</i> 5: 1136-1142, American Society for Microbiology (1985).

EXAMINER

DATE CONSIDERED

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>97</u>	Osuna, R., et al., "Identification of two functional regions in Fis: the N-terminus is required to promote Hin-mediated DNA inversion by not $\lambda$ excision," <i>EMBO J.</i> 10:1593-1603, Oxford University Press (1991).	
AS	<u>97</u>	Pal, S.K., et al., "P1 Plasmid Replication. Role of Initiator Titration in Copy Number Control," <i>J. Mol. Biol.</i> 192:275-285, Academic Press (1986).	
AT	<u>97</u>	Panke, S., et al., "Engineering of Quasi-Natural <i>Pseudomonas putida</i> Strains for Toluene Metabolism through an ortho-Cleavage Degradation Pathway," <i>Appl. Environ. Microbiol.</i> 64:748-751, American Society for Microbiology (February 1998).	

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	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>98</u>	Patel, P.H., and Loeb, L.A., "DNA polymerase active site is highly mutable: Evolutionary consequences," <i>Proc. Natl. Acad. Sci. USA</i> 97:5095-5100, National Academy of Sciences (2000).
	AS	<u>98</u>	Perler, F.B., "InBase, the New England Biolabs Intein Database," <i>Nucl. Acids Res.</i> 27:346-347, Oxford University Press (January 1999).
	AT	<u>98</u>	Persson, M.A.A., "Combinatorial Libraries," <i>Intern. Rev. Immunol.</i> 10:153-163, Harwood Academic Publishers GmbH (1993).

EXAMINER

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**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>99</u>	Phillips-Jones, M.K., et al., "Context Effects on Misreading and Suppression at UAG Codons in Human Cells," <i>Mol. Cell. Biol.</i> 15:6593-6600, American Society for Microbiology (1995).
AS	<u>99</u>	Powell, J., "Enhanced concatemer cloning-a modification to the SAGE (Serial Analysis of Gene Expression) technique," <i>Nucl. Acids Res.</i> 26:3445-3446, Oxford University Press (July 1998).
AT	<u>99</u>	Prieto, M.A., et al., "Molecular Characterization of the 4-Hydroxyphenylacetate Catabolic Pathway of <i>Escherichia coli</i> W: Engineering a Mobile Aromatic Degradative Cluster," <i>J. Bacteriol.</i> 178:111-120, American Society for Microbiology (1996).

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AR	<u>100</u>	Qin, M., et al., "Site-specific cleavage of chromosomes in vitro through Cre-lox recombination," Nucl. Acids Res. 23:1923-1927, Oxford University Press (1995).
AS	<u>100</u>	Ross, W., and Landy, A., "Patterns of $\lambda$ Int Recognition in the Regions of Strand Exchange," Cell 33:261-272, The MIT Press (1983).
AT	<u>100</u>	Sambrook, J., et al., Molecular Cloning: A Laboratory Manual, 2nd ed., Cold Spring Harbor Laboratory Press, New York, NY, pp. 16.6-16.8, (1989).

EXAMINER

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AR	<u>101</u>	Sandhu, J.S., "Protein Engineering of Antibodies," Crit. Rev. Biotechnol. 12:437-462, CRC Press (1992).	
AS	<u>101</u>	Sato, T., et al., "The <i>cisA</i> Cistron of <i>Bacillus subtilis</i> Sporulation Gene <i>spoIVC</i> Encodes a Protein Homologous to a Site-Specific Recombinase," J. Bacteriol. 172:1092-1098, American Society for Microbiology (1990).	
AT	<u>101</u>	Sauer, B., and Henderson, N., "Site-specific DNA recombination in mammalian cells by the Cre recombinase of bacteriophage P1," Proc. Natl. Acad. Sci. USA 85: 5166-5170, National Academy of Sciences (1988).	

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	AP						Yes No

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	AR	<u>102</u>	Sauer, B., "Expression and Functioning in Yeast of a Bacterial Site Specific Recombination System," <i>J. Cell. Bio. Chem. Supp.</i> 10(b): 242 (I340), Alan R. Liss, Inc. (1986).
	AS	<u>102</u>	Schild, D., et al., "Cloning of three human multifunction <i>de novo</i> purine biosynthetic genes by functional complementation of yeast mutations," <i>Proc. Natl. Acad. Sci. USA</i> 87:2916-2920, National Academy of Sciences (1990).
	AT	<u>102</u>	Schnepf, E., et al., " <i>Bacillus thuringiensis</i> and Its Pesticidal Crystal Proteins," <i>Microbiol. Mol. Biol. Rev.</i> 62:775-806, American Society for Microbiology (September 1998).

EXAMINER

DATE CONSIDERED

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## U.S. PATENT DOCUMENTS

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	AA						
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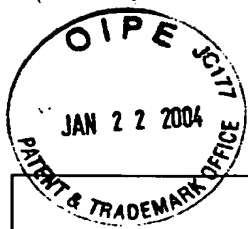
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>103</u>	Scott, S.D., and Marples, B., "Comment on the use of the cre/loxP recombinase system for gene therapy vectors," <i>Gene Therapy</i> 7:1706, Macmillan Publishers Ltd. (2000).
	AS	<u>103</u>	Shim, J., et al., "Distinct and Redundant Functions of $\mu$ 1 Medium Chains of the AP-1 Clathrin-Associated Protein Complex in the Nematode <i>Caenorhabditis elegans</i> ," <i>Mol. Biol. Cell</i> 11:2743-2756, The American Society for Cell Biology (2000).
	AT	<u>103</u>	Skraly, F.A., et al., "Construction and Characterization of a 1,3-Propanediol Operon," <i>Appl. Environ. Microbiol.</i> 64:98-105, American Society for Microbiology (January 1998).

EXAMINER

DATE CONSIDERED

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	AR	<u>104</u>	Spinella, D.G., et al., "Tandem arrayed ligation of expressed sequence tags (TALEST): a new method for generating global gene expression profiles," <i>Nucl. Acids Res.</i> 27(e22):i-viii, Oxford University Press (September 1999).
	AS	<u>104</u>	Stark, W.M., et al., "Site-Specific Recombination by Tn3 Resolvase: Topological Changes in the Forward and Reverse Reactions," <i>Cell</i> 58:779-790, Cell Press (1989).
	AT	<u>104</u>	Stassi, D.L., et al., "Ethyl-substituted erythromycin derivatives produced by directed metabolic engineering," <i>Proc. Natl. Acad. Sci. USA</i> 95:7305-7309, National Academy of Sciences (June 1998).

EXAMINER

DATE CONSIDERED

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	AP						Yes No

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AR	<u>105</u>	Stellwagen, A.E., and Craig, N.L., "Mobile DNA elements: controlling transposition with ATP-dependent molecular switches," <i>Trends Biochem. Sci.</i> 23:486-490, Elsevier Science (December 1998).
AS	<u>105</u>	Stenzel, T.T., et al., "The Integration Host Factor of <i>Escherichia coli</i> Binds to Bent DNA at the Origin of Replication of the Plasmid pSC101," <i>Cell</i> 49:709-717, Cell Press (1987).
AT	<u>105</u>	Stryer, L., "The DNA Template Contains Stop Signals for transcription," in <i>Biochemistry</i> , 2nd ed., W.H. Freeman and Co., New York, NY, p. 610 (1981).

EXAMINER

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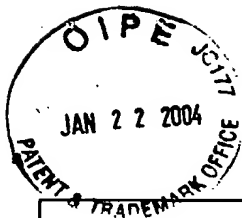
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	<u>106</u>	Sugiura, S., et al., "Minimal Essential Origin of Plasmid pSC101 Replication: Requirement of a Region Downstream of Iterons," <i>J. Bacteriol.</i> 175:5993-6001, American Society for Microbiology (1993).
AS	<u>106</u>	Uetsuki, T., et al., "Isolation and Characterization of the Human Chromosomal Gene for Polypeptide Chain Elongation Factor-1 $\alpha$ ," <i>J. Biol. Chem.</i> 264:5791-5798, The American Society for Biochemistry and Molecular Biology (1989).
AT	<u>106</u>	van den Berg, A., et al., "Serial analysis of gene expression: rapid RT-PCR analysis of unknown SAGE tags," <i>Nucl. Acids Res.</i> 27(e17):i-iii, Oxford University Press (September 1999).

EXAMINER

DATE CONSIDERED

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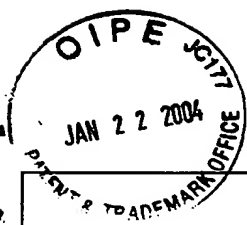
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>107</u>	Vetter, D. et al., "Site-specific recombination of yeast 2- $\mu$ m DNA in vitro," <i>Proc. Natl. Acad. Sci. USA</i> 80: 7284-7288, National Academy of Sciences (1983).
	AS	<u>107</u>	Voss, S.D., et al., "The role of enhancers in the regulation of cell-type-specific transcriptional control," <i>Trends Biochem. Sci.</i> 11:287-289, Elsevier Science (1986).
	AT	<u>107</u>	Voznyanov, Y., et al., "A general model for site-specific recombination by the integrase family recombinases," <i>Nucl. Acids Res.</i> 27:930-941, Oxford University Press (February 1999).

EXAMINER

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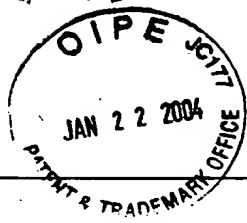
**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>108</u>	Yoon, H., et al., "SSL1, a suppressor of a HIS4 5'-UTR stem-loop mutation, is essential for translation initiation and affects UV resistance in yeast," <i>Genes Dev.</i> 6:2463-2477, Cold Spring Harbor Laboratory Press (1992).
	AS	<u>108</u>	Pending Non-Provisional United States Patent Application No. 09/648,790, Hartley et al., filed August 28, 2000 (NOT PUBLISHED).
	AT	<u>108</u>	Pending Non-Provisional United States Patent Application No. 10/680,316, Hartley et al., filed October 8, 2003 (NOT PUBLISHED).

EXAMINER

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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>109</u>	Pending Non-Provisional United States Patent Application No. 10/396,696, Hartley et al., filed March 26, 2003 (NOT PUBLISHED).	
AS	<u>109</u>	Pending Non-Provisional United States Patent Application No. 09/695,065, Brasch et al., filed October 25, 2000 (NOT PUBLISHED).	
AT	<u>109</u>	Pending Non-Provisional United States Patent Application No. 09/984,239, Brasch et al., filed October 29, 2001 (NOT PUBLISHED).	

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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>110</u>	Pending Non-Provisional United States Patent Application No. 10/640,422, Cheo et al., filed August 14, 2003 (NOT PUBLISHED).
	AS	<u>110</u>	Pending Non-Provisional United States Patent Application No. 10/454,793, Chesnut et al., filed June 5, 2003 (NOT PUBLISHED).
	AT		

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